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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/630,096

07/30/2003

Birgit Kufner

P03,0274

8482

26574

7590

08/10/2006

SCHIFF HARDIN, LLP
PATENT DEPARTMENT
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EXAMINER

BRINEY III, WALTER F

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,096

Applicant(s)

KUFNER, BIRGIT

Examiner

Walter F. Briney III

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6,7,15,16,22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6,7,15,16,22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 7, 15, 16, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narisawa et al. (US Patent 6,041,128) in view of Leedom et al. (US Patent 7,010,137).

Claim 15 is limited to "a hearing aid device." Narisawa discloses a hearing aid as seen in figure 7. The hearing aid includes a "hearing aid device housing" 31 with elements 40-42. See column 8, lines 27-37. The hearing aid of Narisawa includes a battery cover 42 and battery compartment 40A that house a zinc-air battery. See column 2, lines 10-18 and column 9, lines 35-42.

Zinc-air batteries inherently include some type of zinc particle-electrolyte solution that must be housed. A particular housing is seen in figure 2 as element 24. It is also inherent that the zinc-electrolyte mixture is provided with fresh air, which means the housing must be vented. The battery of Narisawa corresponds to the "voltage source with a voltage source housing" as recited.

Returning to figure 7, either cover 42 or compartment 40A correspond to "battery chamber configured to accept the voltage source." Both work together to form a seal aside from the air passage provided by vent 42c, which will be shown to be selectively sealed in an air-tight fashion in view of Leedom. Currently it is noted that both the cover

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42 and compartment 40A are connected to the hearing aid device, and that 42 and 40A are can be "rotated or turned" with respect to each other as seen in figures 13A, 14A, 15A and 16A. This turning motion creates a lock between elements 42 and 40A, thereby forming an air-tight seal as will be shown below. See column 13, line 62, through column 14, line 25.

It is noted that Narisawa fails to provide a way of providing a perfectly airtight seal within the battery chamber as well as a ventilation mechanism as claimed. However, these deficiencies can be overcome by any obvious modification. In particular, Leedom teaches providing multiple batteries in a behind the ear hearing aid, such as the one taught by Narisawa. Doing so provides extra capacity. In implementation an air-tight seal is formed over the inactive battery so as to not unnecessarily drain the battery that is not in current use. See figures 22 and 23. Figure 22 also depicts an advantageous manner of disabling both batteries for the purpose of extending battery life when the hearing aid is not in use. See column 17, lines 14-50. Modifying Narisawa in this manner provides an air-tight seal in conjunction with the seal provided by the locking rotation of the battery cover illustrated in figures 14A-16A of Narisawa. The switch comprising elements 140 and 141 corresponds to a "ventilation mechanism" as recited since its ability to repeatedly enable and prevent ventilation of batteries is performed without the disassembly of the voltage housing.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify a hearing aid to include multiple selectable batteries with an air-tight

switching mechanism as taught by Leedom to realize the advantages indicated in the previous paragraph.

Claim 16 is limited in part to “the hearing aid device according to claim 15,” as covered by Narisawa in view of Leedom. Clearly, either screwing or unscrewing the battery cover 42 of Narisawa into place with the battery in place will either activate or deactivate the hearing aid as screwing brings the battery into contact with the electronics of the hearing aid, where unscrewing releases contact. As noted in the rejection of claim 15, the battery chamber must be exposed to air to activate the hearing aid, but will be sealed air-tight when the hearing aid is to be deactivated. Therefore, Narisawa in view of Leedom makes obvious all limitations of the claim.

Claim 6 is limited to “a hearing aid device.” This claim recites essentially the same “hearing aid device housing,” “voltage source with a voltage source housing” and “ventilation mechanism” as claim 15. The main difference between this claim and claim 15 is that this claim recites, “the ventilation opening of the voltage source is opened or closed via the rotation or turning motion of the battery chamber.” This effect is, however, obvious in view of Narisawa and Leedom.

In particular, Leedom teaches a switch 140 that is rotated with respect to two batteries 142 and 144, that are statically held in the modified battery compartment of Narisawa (modified in the sense that two batteries are held instead of just one). However, it is inherent that one could simply hold switch 140 in a static position while force is exerted on the hearing aid housing including the battery chamber, thereby rotating the battery chamber with respect to switch 140 and causing vents 146 of

batteries 142 and 144 to be opened and closed. Therefore, Narisawa in view of Leedom makes obvious all limitations of the claim.

Claim 7 is limited in part to “the hearing aid device according to claim 6,” as covered by Narisawa in view of Leedom. Clearly, either screwing or unscrewing the battery cover 42 of Narisawa into place with the battery in place will either activate or deactivate the hearing aid as screwing brings the battery into contact with the electronics of the hearing aid, where unscrewing releases contact. As noted in the rejection of claim 15, the battery chamber must be exposed to air to activate the hearing aid, but will be sealed air-tight when the hearing aid is to be deactivated. Therefore, Narisawa in view of Leedom makes obvious all limitations of the claim.

Claim 22 is limited to “a hearing aid device.” This claim is essentially similar to claim 15, but includes in addition to a “ventilation mechanism” a “sealing device” and an “open-close mechanism.” The two new elements will be treated below while the old element is treated in a manner differing from that presented in the rejection of claim 15.

As noted in the rejection of claim 15, Narisawa discloses a “hearing aid device housing,” a “voltage source with a voltage source housing” and a “battery chamber” where Leedom suggested providing multiple batteries that can be sealed in an air-tight manner. In providing multiple batteries, Leedom suggests the use of elements 140, 141 and 148 to selectively enable and disable the batteries. It is further noted that Narisawa discloses an aperture 42C that enables air communication between the outside and the inside of the battery chamber defined by one of cover 42 and compartment 40A. Therefore, in combination, Narisawa provides air communication to a battery via

aperture 42C that is opened or closed by elements 141 and 148 of Leedom in response to actuating switch 140. Aperture 42C corresponds to the "sealing device with at least one closeable sealing device opening", elements 141 and 148 correspond to the "ventilation mechanism" and switch 140 corresponds to the "open-close mechanism" that uses the ventilation mechanism to open/close the sealing device. It is lastly noted that the "sealing device" is closed by a "rotating or turning motion" as illustrated by the relative displacement of elements 140, 141 and 148 in figures 22 and 23. Therefore, Narisawa in view of Leedom makes obvious all limitations of the claim.

Claim 23 is limited in part to "the hearing aid device according to claim 22," as covered by Narisawa in view of Leedom. Clearly, either screwing or unscrewing the battery cover 42 of Narisawa into place with the battery in place will either activate or deactivate the hearing aid as screwing brings the battery into contact with the electronics of the hearing aid, where unscrewing releases contact. As noted in the rejection of claim 15, the battery chamber must be exposed to air to activate the hearing aid, but will be sealed air-tight when the hearing aid is to be deactivated. Therefore, Narisawa in view of Leedom makes obvious all limitations of the claim.

Response to Arguments

Applicant's arguments with respect to claims 6, 7, 15, 16, 22 and 23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


As the new grounds of rejection presented in this Office Action were not necessitated by amendment, this Action is NON-FINAL.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F. Briney III whose telephone number is 571-272-7513. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WFB



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SUPERVISORY PATENT EXAMINER